



# Sequence Listing

<110> de Sauvage, Frederic  
Carpenter, David A.

<120> Patched-2 Antibodies

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<141> 1999-04-14

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Leu	Met	Thr	Pro	Lys	Gln	Met	Tyr	Glu	His	Phe	Lys	Gly	Tyr	Glu					
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Tyr	Val	Ser	His	Ile	Asn	Trp	Asn	Glu	Asp	Lys	Ala	Ala	Ala	Ile					
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Leu	Glu	Ala	Trp	Gln	Arg	Thr	Tyr	Val	Glu	Val	Val	His	Gln	Ser					
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Val	Ala	Gln	Asn	Ser	Thr	Gln	Lys	Val	Leu	Ser	Phe	Thr	Thr	Thr					
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Thr	Leu	Asp	Asp	Ile	Leu	Lys	Ser	Phe	Ser	Asp	Val	Ser	Val	Ile					
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Arg	Val	Ala	Ser	Gly	Tyr	Leu	Leu	Met	Leu	Ala	Tyr	Ala	Cys	Leu					
				395					400					405					
Thr	Met	Leu	Arg	Trp	Asp	Cys	Ser	Lys	Ser	Gln	Gly	Ala	Val	Gly					
				410					415					420					
Leu	Ala	Gly	Val	Leu	Leu	Val	Ala	Leu	Ser	Val	Ala	Ala	Gly	Leu					
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Gly	Leu	Cys	Ser	Leu	Ile	Gly	Ile	Ser	Phe	Asn	Ala	Ala	Thr	Thr					
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Gln	Val	Leu	Pro	Phe	Leu	Ala	Leu	Gly	Val	Gly	Val	Asp	Asp	Val					
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Phe	Leu	Leu	Ala	His	Ala	Phe	Ser	Glu	Thr	Gly	Gln	Asn	Lys	Arg					
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Ile	Pro	Phe	Glu	Asp	Arg	Thr	Gly	Glu	Cys	Leu	Lys	Arg	Thr	Gly					
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Ala	Ser	Val	Ala	Leu	Thr	Ser	Ile	Ser	Asn	Val	Thr	Ala	Phe	Phe					
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Met	Ala	Ala	Leu	Ile	Pro	Ile	Pro	Ala	Leu	Arg	Ala	Phe	Ser	Leu	515	520	525
Gln	Ala	Ala	Val	Val	Val	Val	Phe	Asn	Phe	Ala	Met	Val	Leu	Leu	530	535	540
Ile	Phe	Pro	Ala	Ile	Leu	Ser	Met	Asp	Leu	Tyr	Arg	Arg	Glu	Asp	545	550	555
Arg	Arg	Leu	Asp	Ile	Phe	Cys	Cys	Phe	Thr	Ser	Pro	Cys	Val	Ser	560	565	570
Arg	Val	Ile	Gln	Val	Glu	Pro	Gln	Ala	Tyr	Thr	Asp	Thr	His	Asp	575	580	585
Asn	Thr	Arg	Tyr	Ser	Pro	Pro	Pro	Pro	Tyr	Ser	Ser	His	Ser	Phe	590	595	600
Ala	His	Glu	Thr	Gln	Ile	Thr	Met	Gln	Ser	Thr	Val	Gln	Leu	Arg	605	610	615
Thr	Glu	Tyr	Asp	Pro	His	Thr	His	Val	Tyr	Tyr	Thr	Thr	Ala	Glu	620	625	630
Pro	Arg	Ser	Glu	Ile	Ser	Val	Gln	Pro	Val	Thr	Val	Thr	Gln	Asp	635	640	645
Thr	Leu	Ser	Cys	Gln	Ser	Pro	Glu	Ser	Thr	Ser	Ser	Thr	Arg	Asp	650	655	660
Leu	Leu	Ser	Gln	Phe	Ser	Asp	Ser	Ser	Leu	His	Cys	Leu	Glu	Pro	665	670	675
Pro	Cys	Thr	Lys	Trp	Thr	Leu	Ser	Ser	Phe	Ala	Glu	Lys	His	Tyr	680	685	690
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Val	Arg	Asp	Gly	Leu	Asp	Leu	Thr	Asp	Ile	Val	Pro	Arg	Glu	Thr	725	730	735
Arg	Glu	Tyr	Asp	Phe	Ile	Ala	Ala	Gln	Phe	Lys	Tyr	Phe	Ser	Phe	740	745	750
Tyr	Asn	Met	Tyr	Ile	Val	Thr	Gln	Lys	Ala	Asp	Tyr	Pro	Asn	Ile	755	760	765
Gln	His	Leu	Leu	Tyr	Asp	Leu	His	Arg	Ser	Phe	Ser	Asn	Val	Lys	770	775	780
Tyr	Val	Met	Leu	Glu	Glu	Asn	Lys	Gln	Leu	Pro	Lys	Met	Trp	Leu	785	790	795
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Arg	Leu	Val	Asp	Ala	Asp	Gly	Ile	Ile	Asn	Pro	Ser	Ala	Phe	Tyr	
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Ile	Tyr	Leu	Thr	Ala	Trp	Val	Ser	Asn	Asp	Pro	Val	Ala	Tyr	Ala	
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Ala	Ser	Gln	Ala	Asn	Ile	Arg	Pro	His	Arg	Pro	Glu	Trp	Val	His	
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Asp	Lys	Ala	Asp	Tyr	Met	Pro	Glu	Thr	Arg	Leu	Arg	Ile	Pro	Ala	
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Asp	Phe	Ile	Val	Arg	Tyr	Phe	Phe	Ala	Val	Leu	Ala	Ile	Leu	Thr	
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Ser Phe Phe Gly Pro Tyr Pro Glu Val Ser	Pro Ala Asn Gly Leu	
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Asn Arg Leu Pro Thr Pro Ser Pro Glu Pro	Pro Pro Ser Val Val	
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Arg Phe Ala Met Pro Pro Gly His Thr His	Ser Gly Ser Asp Ser	
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Ser Asp Ser Glu Tyr Ser Ser Gln Thr Thr	Val Ser Gly Leu Ser	
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Glu Glu Leu Arg His Tyr Glu Ala Gln Gln	Gly Ala Gly Gly Pro	
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His Ser Thr Val Val His Pro Glu Ser Arg	His His Pro Pro Ser	
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Gly Arg Gln Gly Gln Gln Pro Arg Arg Asp	Pro Pro Arg Glu Gly	
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Leu Trp Pro Pro Leu Tyr Arg Pro Arg Arg	Asp Ala Phe Glu Ile	
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Ser Thr Glu Gly His Ser Gly Pro Ser Asn	Arg Ala Arg Trp Gly	
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Pro Arg Gly Ala Arg Ser His Asn Pro Arg	Asn Pro Ala Ser Thr	
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Ala Met Gly Ser Ser Val Pro Gly Tyr Cys	Gln Pro Ile Thr Thr	
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Val Thr Ala Ser Ala Ser Val Thr Val Ala	Val His Pro Pro Pro	
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Val Pro Gly Pro Gly Arg Asn Pro Arg Gly	Gly Leu Cys Pro Gly	
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Tyr Pro Glu Thr Asp His Gly Leu Phe Glu	Asp Pro His Val Pro	
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Phe His Val Arg Cys Glu Arg Arg Asp Ser	Lys Val Glu Val Ile	
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Ser Asn		

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<212> PRT

<213> Mus musculus

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Gln	Ala	Pro	Leu	Trp	Leu	Arg	Ala	Tyr	Phe	Gln	Gly	Leu	Leu	Phe
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Ser	Leu	Gly	Cys	Arg	Ile	Gln	Lys	His	Cys	Gly	Lys	Val	Leu	Phe
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Leu	Gly	Leu	Val	Ala	Phe	Gly	Ala	Leu	Ala	Leu	Gly	Leu	Arg	Val
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Ala	Val	Ile	Glu	Thr	Asp	Leu	Glu	Gln	Leu	Trp	Val	Glu	Val	Gly
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Ser	Arg	Val	Ser	Gln	Glu	Leu	His	Tyr	Thr	Lys	Glu	Lys	Leu	Gly
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Glu	Glu	Ala	Ala	Tyr	Thr	Ser	Gln	Met	Leu	Ile	Gln	Thr	Ala	His
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Gln	Glu	Gly	Gly	Asn	Val	Leu	Thr	Pro	Glu	Ala	Leu	Asp	Leu	His
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Leu	Gln	Ala	Ala	Leu	Thr	Ala	Ser	Lys	Val	Gln	Val	Ser	Leu	Tyr
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Gly	Lys	Ser	Trp	Asp	Leu	Asn	Lys	Ile	Cys	Tyr	Lys	Ser	Gly	Val
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Pro	Leu	Ile	Glu	Asn	Gly	Met	Ile	Glu	Arg	Met	Ile	Glu	Lys	Leu
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Ala	Lys	Leu	Gln	Gly	Gly	Ser	Ala	Tyr	Leu	Pro	Gly	Arg	Pro	Asp
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Ile	Gln	Trp	Thr	Asn	Leu	Asp	Pro	Gln	Gln	Leu	Leu	Glu	Glu	Leu
				215					220					225
Gly	Pro	Phe	Ala	Ser	Leu	Glu	Gly	Phe	Arg	Glu	Leu	Leu	Asp	Lys
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Ala	Gln	Val	Gly	Gln	Ala	Tyr	Val	Gly	Arg	Pro	Cys	Leu	Asp	Pro
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Asp	Asp	Pro	His	Cys	Pro	Pro	Ser	Ala	Pro	Asn	Arg	His	Ser	Arg
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Gln	Ala	Pro	Asn	Val	Ala	Gln	Glu	Leu	Ser	Gly	Gly	Cys	His	Gly
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Phe Ser His Lys	Phe Met His Trp Gln	Glu Glu Leu Leu Leu	Gly
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Gly Thr Ala Arg	Asp Leu Gln Gly Gln	Leu Leu Arg Ala Glu	Ala
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Leu Gln Ser Thr	Phe Leu Leu Met Ser	Pro Arg Gln Leu Tyr	Glu
	320	325	330
His Phe Arg Gly	Asp Tyr Gln Thr His	Asp Ile Gly Trp Ser	Glu
	335	340	345
Glu Gln Ala Ser	Met Val Leu Gln Ala	Trp Gln Arg Arg Phe	Val
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Gln Leu Ala Gln	Glu Ala Leu Pro Ala	Asn Ala Ser Gln Gln	Ile
	365	370	375
His Ala Phe Ser	Ser Thr Thr Leu Asp	Asp Ile Leu Arg Ala	Phe
	380	385	390
Ser Glu Val Ser	Thr Thr Arg Val Val	Gly Gly Tyr Leu Leu	Met
	395	400	405
Leu Ala Tyr Ala	Cys Val Thr Met Leu	Arg Trp Asp Cys Ala	Gln
	410	415	420
Ser Gln Gly Ala	Val Gly Leu Ala Gly	Val Leu Leu Val Ala	Leu
	425	430	435
Ala Val Ala Ser	Gly Leu Gly Leu Cys	Ala Leu Leu Gly Ile	Thr
	440	445	450
Phe Asn Ala Ala	Thr Thr Gln Val Leu	Pro Phe Leu Ala Leu	Gly
	455	460	465
Ile Gly Val Asp	Asp Ile Phe Leu Leu	Ala His Ala Phe Thr	Lys
	470	475	480
Ala Pro Pro Asp	Thr Pro Leu Pro Glu	Arg Met Gly Glu Cys	Leu
	485	490	495
Arg Ser Thr Gly	Thr Ser Val Ala Leu	Thr Ser Val Asn Asn	Met
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Val Ala Phe Phe	Met Ala Ala Leu Val	Pro Ile Pro Ala Leu	Arg
	515	520	525
Ala Phe Ser Leu	Gln Ala Ala Ile Val	Val Gly Cys Asn Phe	Ala
	530	535	540
Ala Val Met Leu	Val Phe Pro Ala Ile	Leu Ser Leu Asp Leu	Arg
	545	550	555
Arg Arg His Arg	Gln Arg Leu Asp Val	Leu Cys Cys Phe Ser	Ser
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Pro Cys Ser Ala	Gln Val Ile Gln Met	Leu Pro Gln Glu Leu	Gly
	575	580	585
Asp Arg Ala Val	Pro Val Gly Ile Ala	His Leu Thr Ala Thr	Val

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Gln Ala Phe Thr	His Cys Glu Ala Ser	Ser Gln His Val Val	Thr		
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Ile Leu Pro Pro	Gln Ala His Leu Leu	Ser Pro Ala Ser Asp	Pro		
	620	625		630	
Leu Gly Ser Glu	Leu Tyr Ser Pro Gly	Gly Ser Thr Arg Asp	Leu		
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Leu Ser Gln Glu	Glu Gly Thr Gly Pro	Gln Ala Ala Cys Arg	Pro		
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Leu Leu Cys Ala	His Trp Thr Leu Ala	His Phe Ala Arg Tyr	Gln		
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Phe Ala Pro Leu	Leu Leu Gln Thr Arg	Ala Lys Ala Leu Val	Leu		
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Leu Phe Phe Gly	Ala Leu Leu Gly Leu	Ser Leu Tyr Gly Ala	Thr		
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Leu Val Gln Asp	Gly Leu Ala Leu Thr	Asp Val Val Pro Arg	Gly		
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Thr Lys Glu His	Ala Phe Leu Ser Ala	Gln Leu Arg Tyr Phe	Ser		
	725	730		735	
Leu Tyr Glu Val	Ala Leu Val Thr Gln	Gly Gly Phe Asp Tyr	Ala		
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His Ser Gln Arg	Ala Leu Phe Asp Leu	His Gln Arg Phe Ser	Ser		
	755	760		765	
Leu Lys Ala Val	Leu Pro Pro Pro Ala	Thr Gln Ala Pro Arg	Thr		
	770	775		780	
Trp Leu His Tyr	Tyr Arg Ser Trp Leu	Gln Gly Ile Gln Ala	Ala		
	785	790		795	
Phe Asp Gln Asp	Trp Ala Ser Gly Arg	Ile Thr Cys His Ser	Tyr		
	800	805		810	
Arg Asn Gly Ser	Glu Asp Gly Ala Leu	Ala Tyr Lys Leu Leu	Ile		
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Gln Thr Gly Asn	Ala Gln Glu Pro Leu	Asp Phe Ser Gln Leu	Thr		
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Thr Arg Lys Leu	Val Asp Lys Glu Gly	Leu Ile Pro Pro Glu	Leu		
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Leu Ala Ala Ser	Gln Ala Asn Phe Tyr	Pro Pro Pro Pro Glu	Trp		
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Leu His Asp Lys	Tyr Asp Thr Thr Gly	Glu Asn Leu Arg Ile	Pro		
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Ala Ala Gln Pro	Leu Glu Phe Ala Gln Phe Pro Phe Leu Leu His	905	910	915
Gly Leu Gln Lys	Thr Ala Asp Phe Val Glu Ala Ile Glu Gly Ala	920	925	930
Arg Ala Ala Cys	Thr Glu Ala Gly Gln Ala Gly Val His Ala Tyr	935	940	945
Pro Ser Gly Ser	Pro Phe Leu Phe Trp Glu Gln Tyr Leu Gly Leu	950	955	960
Arg Arg Cys Phe	Leu Leu Ala Val Cys Ile Leu Leu Val Cys Thr	965	970	975
Phe Leu Val Cys	Ala Leu Leu Leu Leu Ser Pro Trp Thr Ala Gly	980	985	990
Leu Ile Val Leu	Val Leu Ala Met Met Thr Val Glu Leu Phe Gly	995	1000	1005
Ile Met Gly Phe	Leu Gly Ile Lys Leu Ser Ala Ile Pro Val Val	1010	1015	1020
Ile Leu Val Ala	Ser Ile Gly Ile Gly Val Glu Phe Thr Val His	1025	1030	1035
Val Ala Leu Gly	Phe Leu Thr Ser His Gly Ser Arg Asn Leu Arg	1040	1045	1050
Ala Ala Ser Ala	Leu Glu Gln Thr Phe Ala Pro Val Thr Asp Gly	1055	1060	1065
Ala Val Ser Thr	Leu Leu Gly Leu Leu Met Leu Ala Gly Ser Asn	1070	1075	1080
Phe Asp Phe Ile	Ile Arg Tyr Phe Phe Val Val Leu Thr Val Leu	1085	1090	1095
Thr Leu Leu Gly	Leu Leu His Gly Leu Leu Leu Leu Pro Val Leu	1100	1105	1110
Leu Ser Ile Leu	Gly Pro Pro Pro Gln Val Val Gln Val Tyr Lys	1115	1120	1125
Glu Ser Pro Gln	Thr Leu Asn Ser Ala Ala Pro Gln Arg Gly Gly	1130	1135	1140
Leu Arg Trp Asp	Arg Pro Pro Thr Leu Pro Gln Ser Phe Ala Arg	1145	1150	1155
Val Thr Thr Ser	Met Thr Val Ala Leu His Pro Pro Pro Leu Pro	1160	1165	1170
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<211> 4004

<212> DNA

<213> Homo sapiens

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